

Value Engineering Study FHWA Summary Report

<i>California</i> Division/State
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<i>2005 (October 1, 2004 - September 30, 2005)</i> Federal Fiscal Year
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	In-house	Consultant	Total
1. <u>Number</u> of VE studies			
1.1 Studies <u>conducted</u> this year:		11	11
1.2 Studies <u>finalized</u> this year:		31	31
2. <u>Cost</u> of VE Program			
2.1 Costs of studies <u>conducted</u> this year:		\$ 878,000	\$878,000
2.2 Costs of studies <u>finalized</u> this year:		\$1,609,000	\$1,609,000
3. <u>Estimated project costs of studies finalized this year</u>			
3.1 Total cost of projects finalized this year:		\$ 6,227,000,000.00	\$6,227,000,000
4. <u>Number</u> of proposed VE recommendations			
4.1 Studies <u>conducted</u> this year:		53	53
4.2 Studies <u>finalized</u> this year:		251	251
5. <u>Number</u> of Approved VE recommendations			
5.1 Studies <u>finalized</u> this year:		87	87
6. <u>Value</u> of proposed VE recommendations			
6.1 Studies <u>finalized</u> this year:		\$574,326,000	\$574,326,000
7. <u>Value</u> of all approved VE recommendations			
7.1 Studies <u>finalized</u> this year:		\$81,584,000	\$81,584,000
8. <u>VE related training costs</u>			
8.1 VE related training costs		None	None
9. <u>Number of people trained in VE during this year</u>			
9.1 Number of <u>State DOT Employees</u> Trained		None	None
9.2 Number of <u>FHWA Employees</u> Trained		N/A	N/A
9.3 Number of <u>Others</u> Trained		N/A	N/A
9.4 Total number trained		None	None
10. <u>Number</u> of Construction VECs			
10.1 <u>Submitted</u> this year:		Not Available	Not Available
10.2 <u>Approved</u> this year:		23	23
11. <u>Savings</u> from approved Construction VECs			
11.1 Savings from VECs <u>Approved</u> this year:		\$2,256,000	\$2,256,000

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12. Studies of special merit

12.1 Study Name:

HIGHWAY PLANTING RESTORATION

12.2 Study Description, Comments

Over 4000 trees, particularly Eucalyptus species, are declining due to diseases or insect infestation by lerp psyllid. The trees become less successful at surviving infestation over time. There is no currently proven defense against the lerp and pitch pine canker. However, research indicates that irrigated Pine, Eucalyptus and other species may resist infestation and illness better than non-irrigated trees. If the declining trees are not removed, safety problems may develop. While Caltrans Maintenance will remove about 100 diseased trees in SCL County on EA 2R4501 through the HM2 Program in FY 2003/04, Maintenance is not resourced to accomplish tree removal work at the scale of the proposed project. Removal of diseased mature trees due to safety needs will impact the screening, aesthetic, erosion control, and other functions the trees have served. Negative public perception will need to be addressed with sensitive educational and informational campaigns. Study Purpose: Create effective PA&ED process and product, and PS&E process and product in order to obtain the following objectives:

1. Expedite process on this safety-related project.
2. Evaluate environmental process and issues.
3. Reduce impact on traffic.
4. Evaluate how to split work among the three identified project EAs.

Comments:

This is the District 4 first-ever project that is involved in removing a large scale of the diseased trees.
This is the first-ever Caltrans VA study performed to explore processes and products for this type of project.
DIGITAL HIGHWAY INVENTORY PHOTOGRAPHY PROGRAM (DHIPP) is used to map locations of diseased trees.
VA study is not required for this project

Analysis of Results

Return On Investment	=	$\frac{\text{Value of Approved Recommendations}}{\text{Project Costs of Studies Finalized}}$	51
% of Project Costs Saved	=	$\frac{\text{Value of Approved}}{\text{Project Costs of Studies}}$	1%
Recommendation Acceptance Rate	=	$\frac{\text{\# of Approved}}{\text{\# of Proposed}}$	35%
Average Cost Savings per Recommendation	=	$\frac{\text{Total Value of Recommendations Finalized this Year}}{\text{Total \# of Recommendations Finalized this Year}}$	\$937,747
VECP Acceptance Rate	=	$\frac{\text{\# of Approved VECP}}{\text{\# of Submitted VECP}}$	#VALUE!